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EXAMINER	
WILLIS, RANDAL L	

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,772	SALMAN ET AL.	
	Examiner	Art Unit	
	RANDAL WILLIS	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-8,11,14-21 and 23-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-8,11,14-21 and 23-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application 10/563772 filed January 4th 2006.

Claims 1, 5-8, 11, 14-21, 23-26 are currently pending and have been examined.

Response to Arguments

2. Applicant's arguments filed 5/5/11 have been fully considered but they are moot in view of new grounds of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5-7, 14-15, 19, 23-26 rejected under 35 U.S.C. 102(e) as being anticipated by Kamizono (6,697,054).

Apropos claim 1,14 and 26, Kamizono teaches:

An apparatus comprising:

a body (Keyboard Device, Fig. 7)

a keyboard upon said body (Fig. 7) including at least one key, the keyboard configured to cause (Group 7 and 8, Fig. 7) a first function associated with activation of the key by physical contact with a terminating hand member of a user's right hand and a second function associated with activation of the key by physical contact with a terminating hand member of a user's left hand (Col 7 lines 3-23, combination of Left and Right sensor to detect presence of left or right hand in home position can be used to control the functions of a group of keys); and

a detection mechanism, including one or more touch sensitive sensors and associated logic, configured to detect one or more changes in physical contact between the body and either the user's right hand, the user's left hand or both, based at least in part on change sensed by the one or more touch-sensitive sensors (Sensors L1 and R1, Fig. 7 which can be contact sensors Col 3 lines 15-20 which detect pressure),

in response to detecting the one or more changes in physical contact Col 6 lines 29-50), determine which one of the user's two hands will be used to activate the key

in response to determining, assign one of the first or the second function to the activation of the key (Col 7 lines 3-23).

However, Matusis doesn't explicitly teach that the first or second function is assigned prior to physical activation of the key.

Apropos claim 5, Kamizono teaches:

The apparatus of claim 1 wherein said one or more touch-sensitive sensors comprise at least one terminating hand member proximity sensor (1L and 1R, Fig. 7).

Apropos claim 6, Kamizono teaches:

The apparatus of claim 5 wherein said terminating hand member sensor is configured to detect that a detected terminating hand member is in a non- use position due to the detected termination hand member being in proximity to the terminating hand member proximity sensor (Col 6 lines 29-41).

Apropos claim 7, Kamizono teaches:

Wherein said touch-senstive sensor comprises at least one pressure sensor configured to detect an increase in pressure on the body by either the user's left hand, the user's right hand or both (Col 3 lines 15-20, sensor may be contact sensor).

Apropos claim 15, Kamizono teaches:

Wherein said at least one pressure sensor configured to detect an increased inward pressure on a side of said body (1L detects pressure of hand on front side of keyboard, Fig. 7)

Apropos claim 19, Kamizono teaches:

In an electronic device comprising a keyboard and having a plurality of input keys (Fig. 7), including at least a first key having configured to input a first character value if the first key is activated by a terminating hand member of a user's right hand and a second different character value if the first key is activated by a terminating hand

member of a user's left hand (Col 7 lines 3-23, sensors detecting presence or non-presence of hand and changing function of the key accordingly) a method comprising:

Detecting, kinetically or on a touch-sensitive basis (1L, 1R, Fig. 7)one or more changes in physical contact between the body and either the user's right hand, the user's left hand or both (Col 6 liens 29-50)

In response to detecting the one or more changes in physical contact, determine which of the user's two hands will be used to activate the key; (Col 6 lines 29-50); and

assigning one of said first or second character value to of said first key, based at least in part upon said determination (Col 7 lines 3-23), the assigned character to be inputted upon activation of the first key within a period of time from the determination (Pre-defined period of time being as long as the sensor 1L or 1R indicates the hand is not in proximity/is in proximity).

Apropos claim 23 and 24, Kamiono teaches:

Wherein said terminating hand member proximity sensor is configured to detect that a detected terminating hand member has moved from a non-use position due ot the detected terminating hand member moving away from proximity to the terminating hand member proximity sensor (Col 6 lines 33-50).

Apropos claim 25 Kamino teaches:

Detecting one or more changes in physical contact comprises detecting an increase in pressure on the body by either the user's left hadn, the user's right hand or both (col 3 lines 1-15, col 6 lines 33-50).

3. Claims 17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Williams (6,956,564)

Apropos claim 17, Williams teaches:

An apparatus comprising:

a body (Fig. 1)

a keyboard upon said body (Buttons 6-13, Fig. 1) they keyboard configured to cause (Col 5 lines 3-10) a first function if the key is activated with a terminating hand member of the right hand and a second function if the key is activated with a terminating hand member of the left hand (Col 4 line 65-Col 5 lines 10); and

a motion sensor and associated logic, configured to (Accelerometers 31, 31 Fig. 3) :

detect, kinetically, right-to-left or left-to-right movements of at least a portion of the body by either the user's left hand, the user's right hand or both (Col 3 lines 63-Col 5 lines 10 and Col 6 lines 15-35).

In the same field of portable input devices, Harrison teaches having motion detectors (3a,b Fig. 1) which can detect the orientation of the portable devices, and change the function of the input keys according to the orientation (See Figures 2 and 3)

In response to detecting the one or more movements, determine which one of the user's two hands will be used to activate the key (Col 4 lines 62-67)

In response to the determining, assign one of the first function or the second function to the activation of the key (Col 5 lines 1-10)

Apropos claim 18, Williams fails to explicitly teach:

The apparatus of claim 17 wherein said motion sensor is a MicroElectroMechanical Systems (MEMS) device.

However, examiner takes official notice that MEMS motion sensors are common in the art and therefor would have been an obvious choice for the motion sensors taught by Williams above to one of ordinary skill in the art at the time of the invention.

Apropos claim 19, Williams teaches:

In an electronic device comprising a keyboard and having a plurality of input keys (Fig. 1), including at least a first key having configured to input a first character value if the first key is activated by a terminating hand member of a user's right hand and a second different character value if the first key is activated by a terminating hand member of a user's left hand (Col 4 line 65-Col 5 lines 10) a method comprising:

Detecting, kinetically or on a touch-sensitive basis (Col 3 lines 63-Col 5 lines 10 and Col 6 lines 15-35)one or more changes in physical contact between the body and either the user's right hand, the user's left hand or both (Inherent in determining which hand is holding the device)

In response to detecting the one or more changes in physical contact, determine which of the user's two hands will be used to activate the key; (Col 4 line 65-Col 5 lines 10, hand holding the device assumed to be the one to hit the keys); and

assigning one of said first or second character value to of said first key, based at least in part upon said determination (Col 4 line 65-Col 5 lines 10), the assigned character to be inputted upon activation of the first key within a pre-defined period of time from the determination (Col 6 lines 1-10, 10ms interval from the accelerometer).

Apropos claim 20, Williams teaches:

The method of claim 19 further comprising:

Assigning the other of the first or second character value to the activation of the key if no activation occurs within the pre-defined period of time since said determining (Col 6 lines 1-10, 10ms interval from the accelerometer, if no input entered within the 10ms and the orientation is changed, the assigned function will change)

Apropos claim 21, Williams teaches:

Wherein said determining comprises monitoring right-to-left or left-to-right movements of the body by either the user's left hand, the user's right hand or both (Col 5 lines 50-Col 6 line 10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 8, 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamizono in view of Wong

Apropos claim 8 and 16, Kamizono teaches:

Wherein said at least one pressure sensor is configured to detect an increased inward pressure on a side of said body (Col 6 lines 29-50), where the processor is configured to determine the movements of the user's termination hand members based at least in part on such increased inward pressure on the side of the body (In Kamizono's design, the sensor 1L and 1R can be said to determine the up/down motion of the left or right hands, as in the embodiment shown in Fig. 7 moving the left hand down would activate the associated keypad)

However Kamizono fails to explicitly teach:

Detecting right-to-left or left-to-right movements of the user's hand members.

Wong teaches a input device which detects the presence or absence of the user's hand members located on the sides of the input device (See Fig. 4).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the touch sensors of Kamizono could be positioned to the left/right of the input area as taught by Wong in order to achieve the predictable result of detecting the presence of the user's hands and activating certain key functions accordingly.

Apropos claim 11, Kamizono fails to explicitly teaches:

The apparatus of claim 1 wherein the apparatus is a selected one of a wireless mobile phone and a personal digital assistant.

However, examiner takes official notice that keyboards and other input devices are often incorporated into phone, PDA's and other mobile devices. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include the keyboard with hand detecting as taught by Kamizono in a PDA or other mobile device.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RANDAL WILLIS whose telephone number is (571)270-1461. The examiner can normally be reached on Monday to Thursday, 8am to 4pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Amr Awad/
Supervisory Patent Examiner, Art Unit 2629

/RLW/